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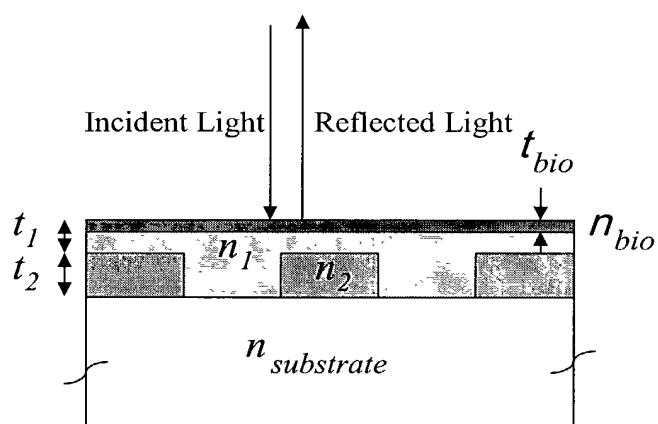


Figure 1 A

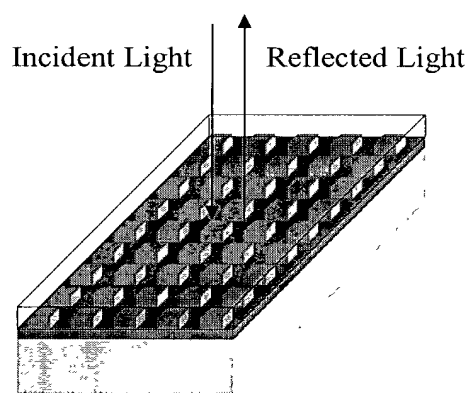


Figure 1 B



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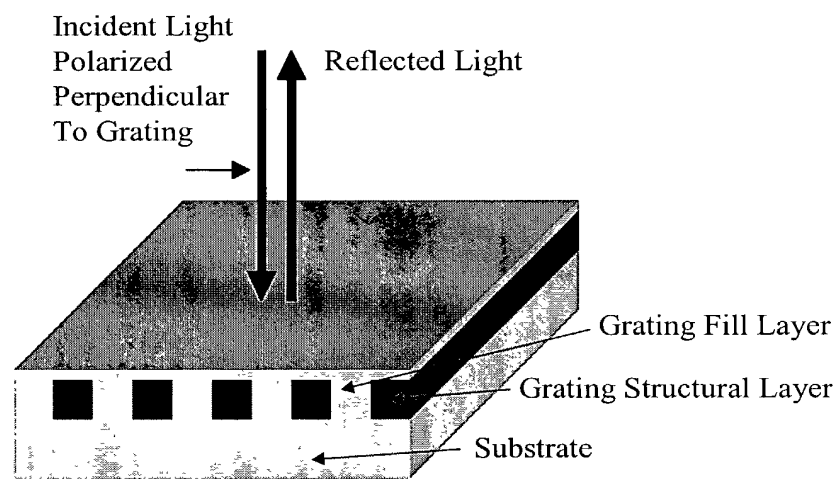
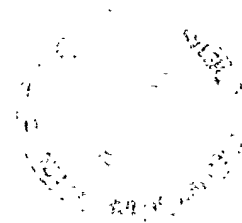


Figure 2



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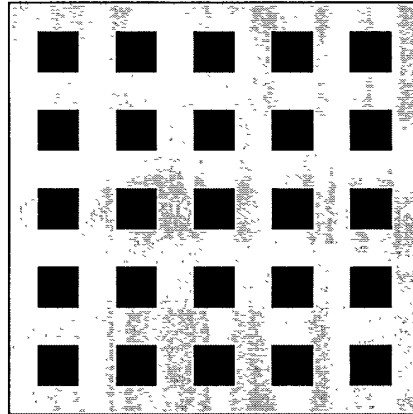


Figure 3A

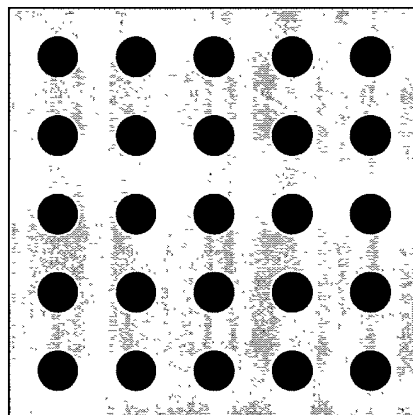
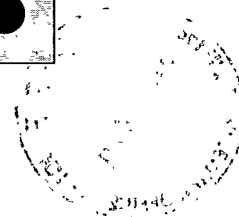


Figure 3B



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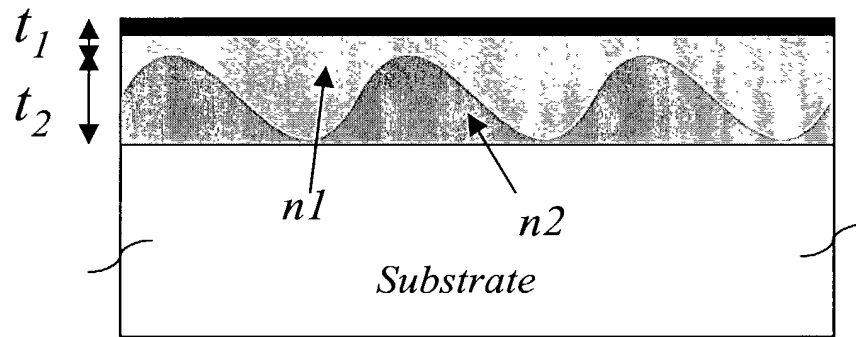
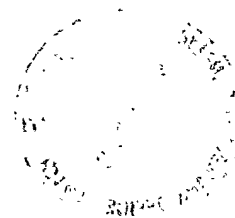


Figure 4



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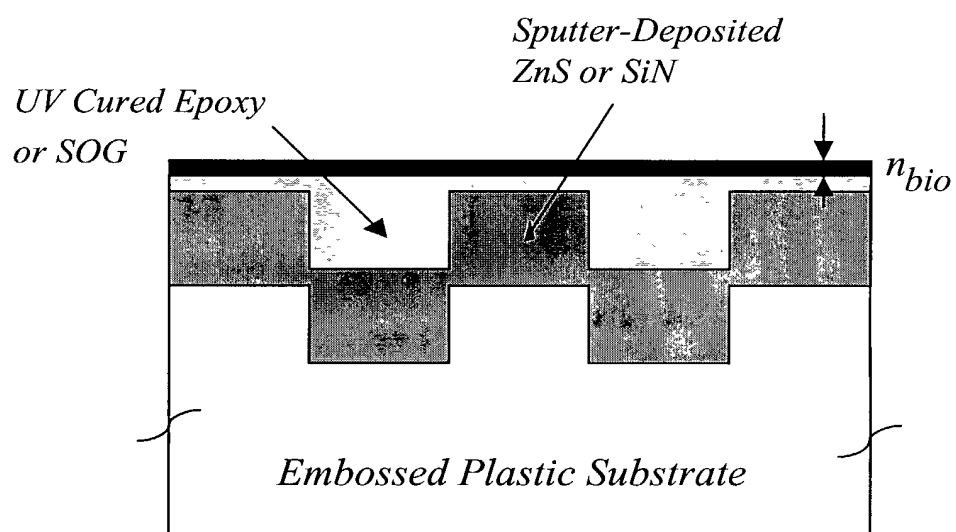


Figure 5







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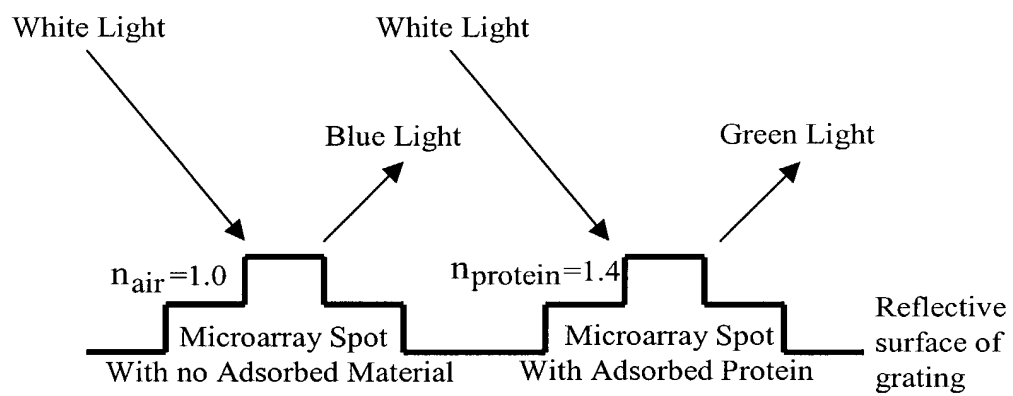
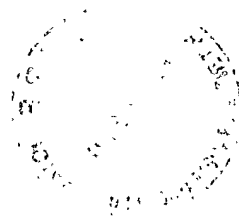
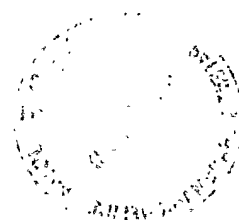


Figure 8









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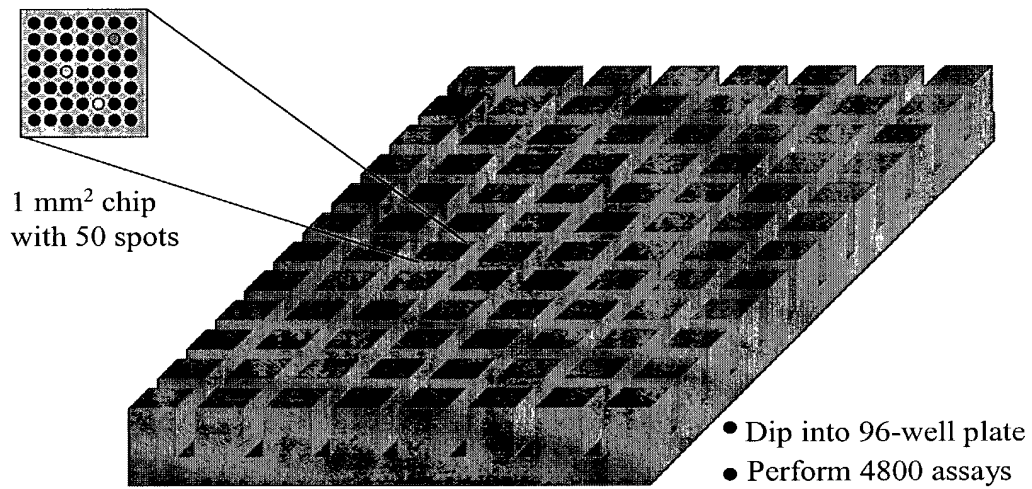


Figure 11



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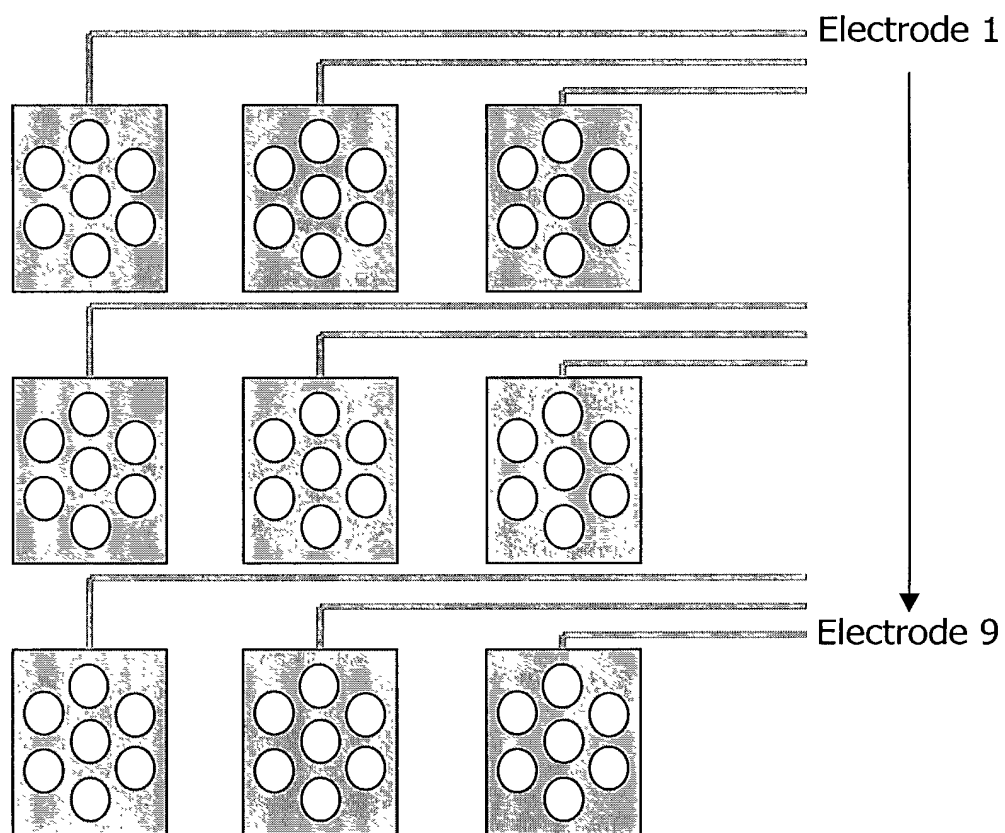
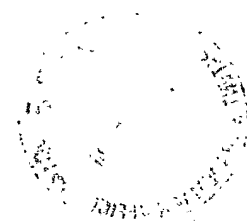
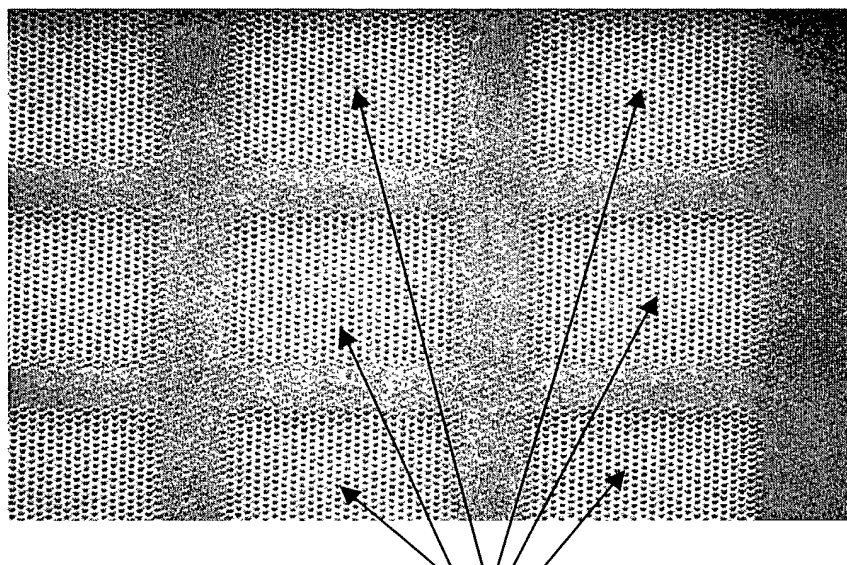


Figure 12



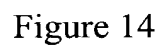
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Separate electrode grating regions

Figure 13





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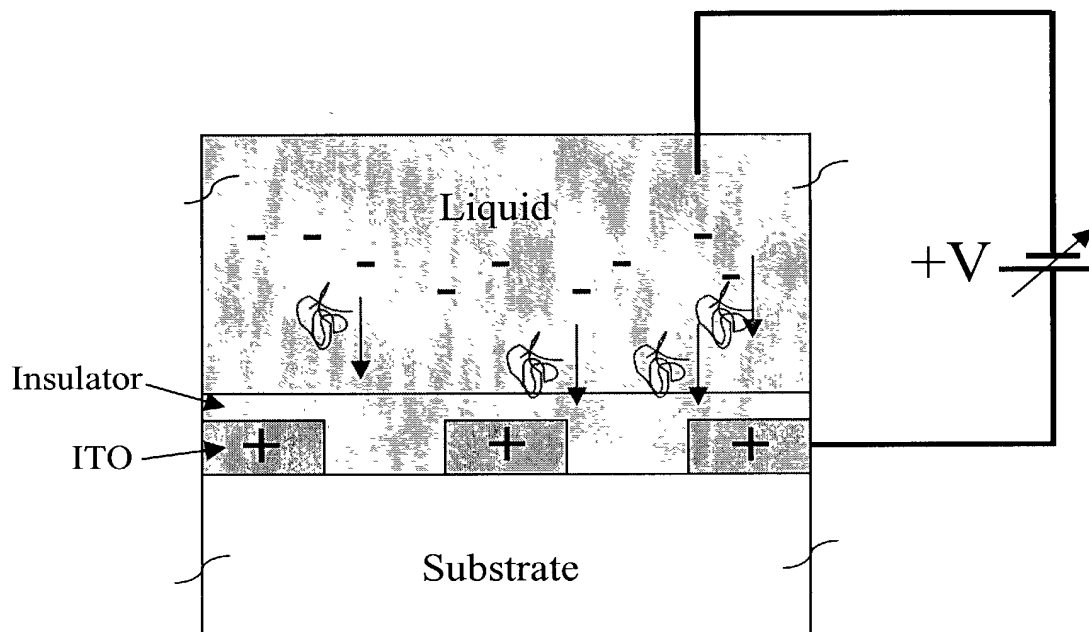
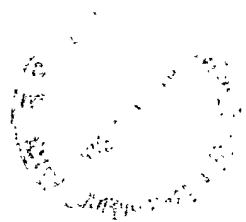


Figure 15



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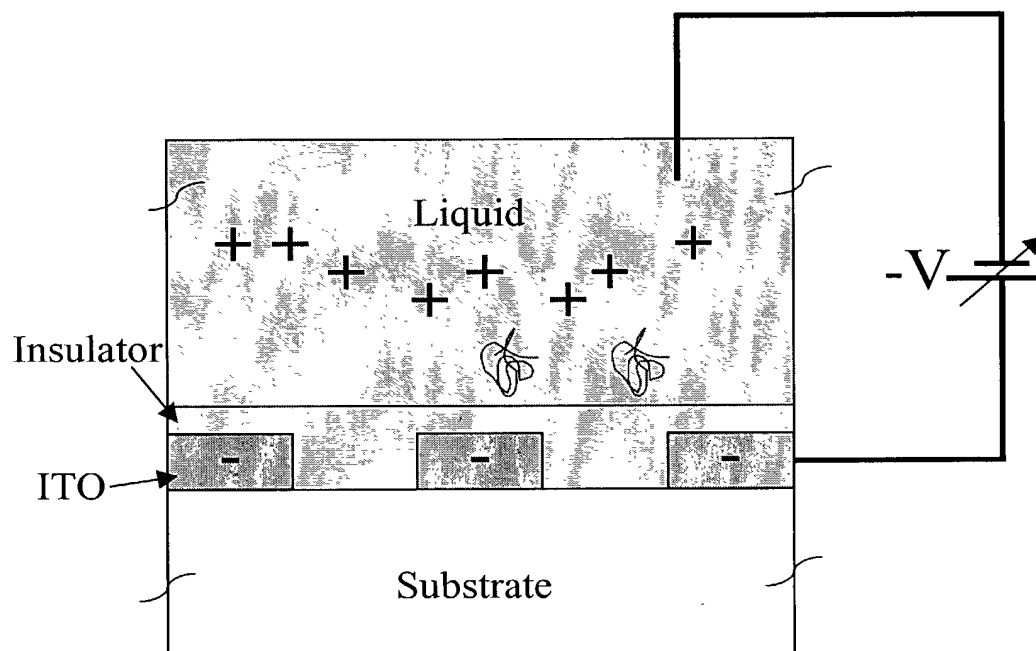
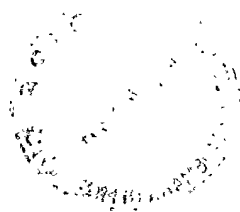
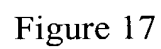


Figure 16







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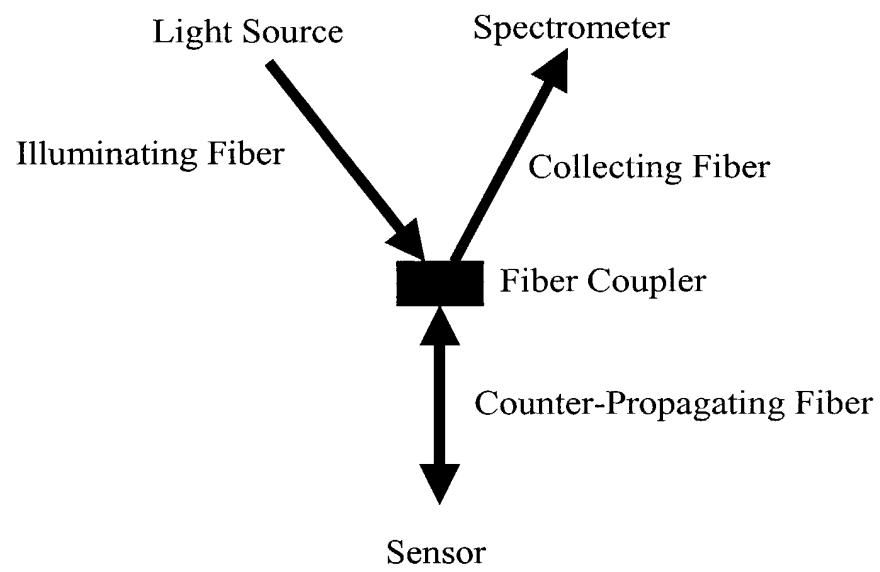
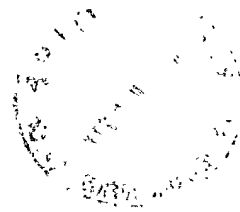


Figure 18



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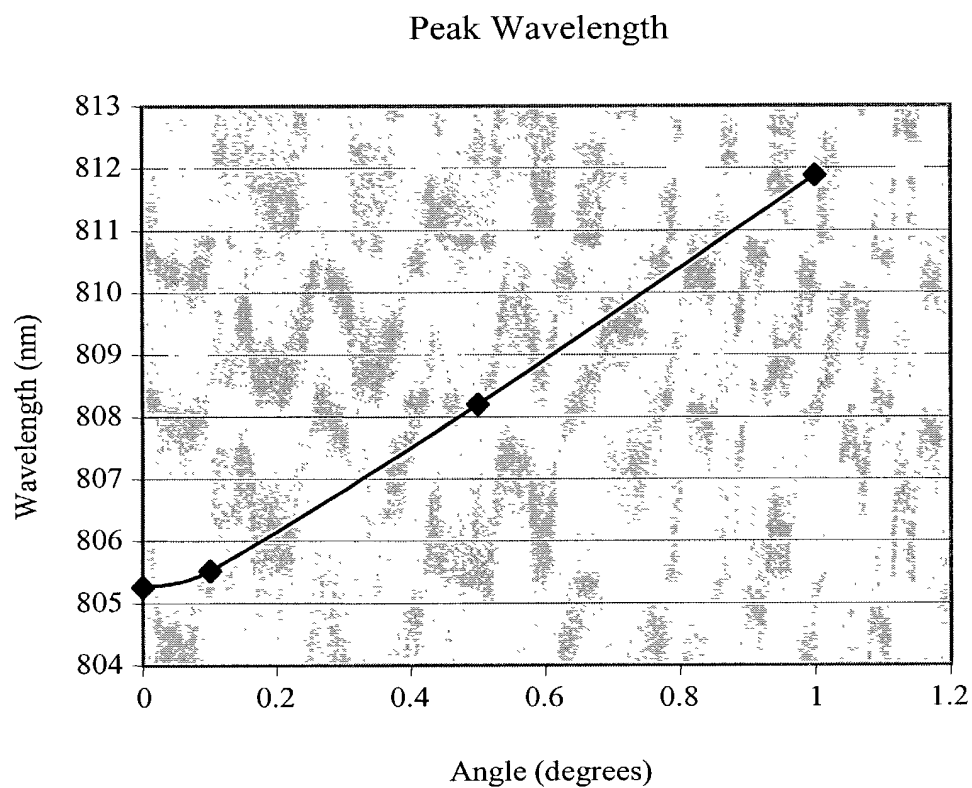
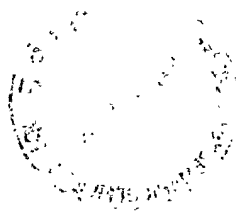


Figure 19





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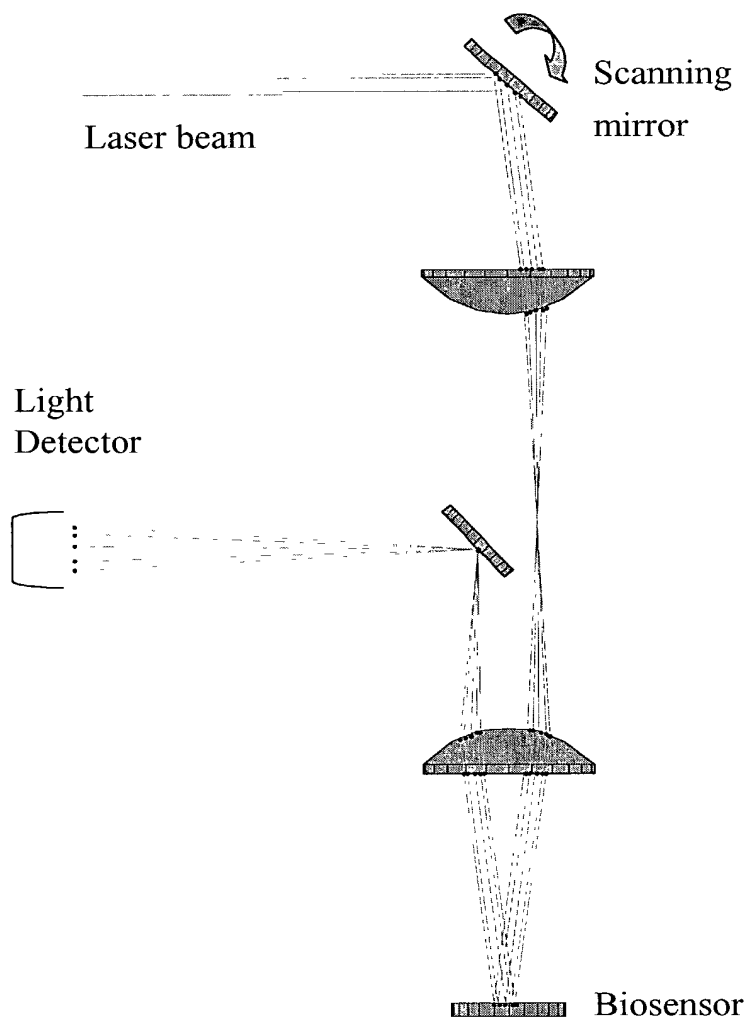
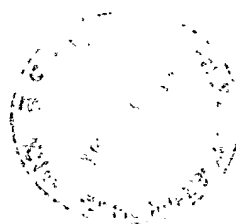


Figure 21



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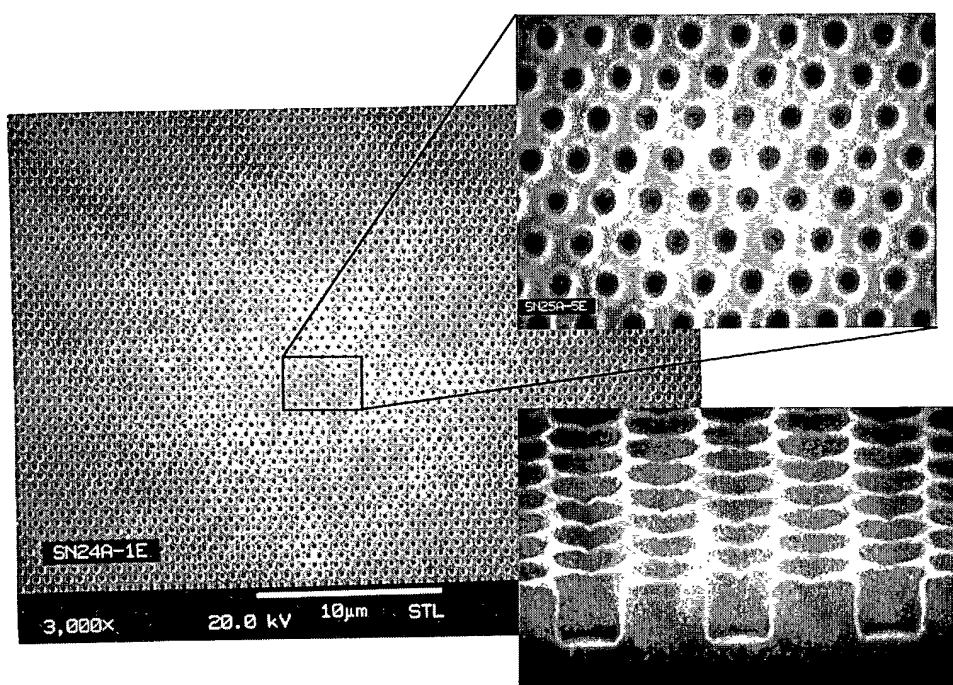


Figure 22





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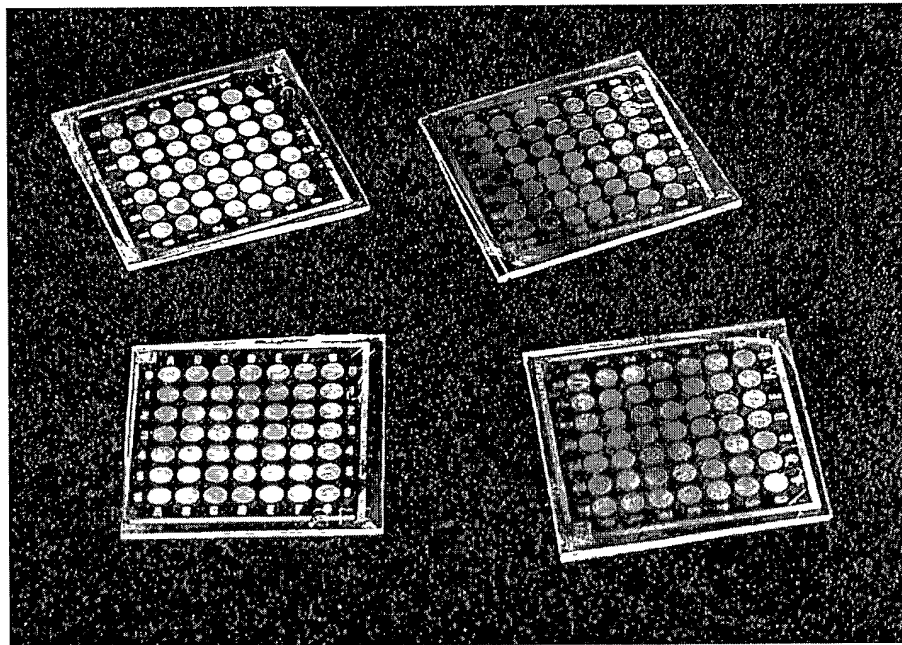
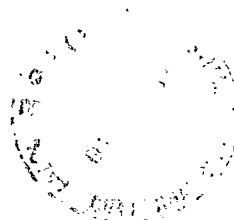


Figure 24





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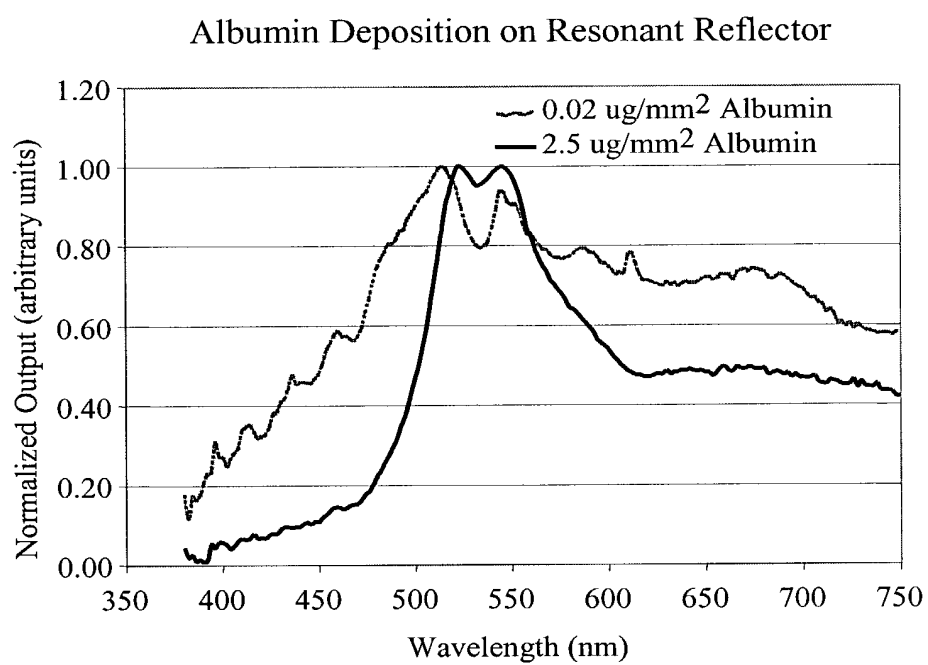


Figure 25



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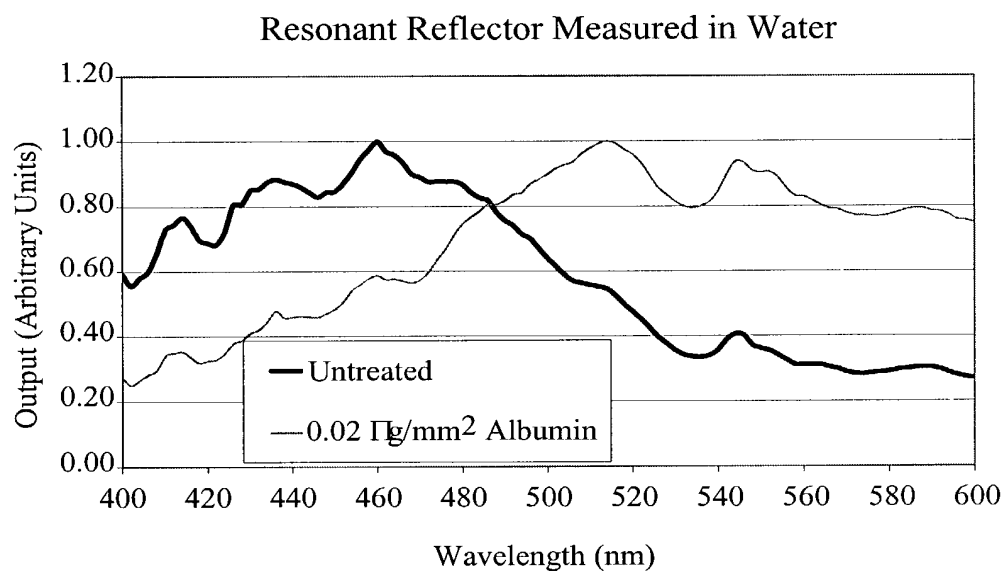
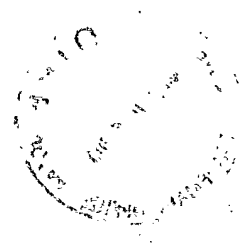
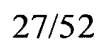


Figure 26





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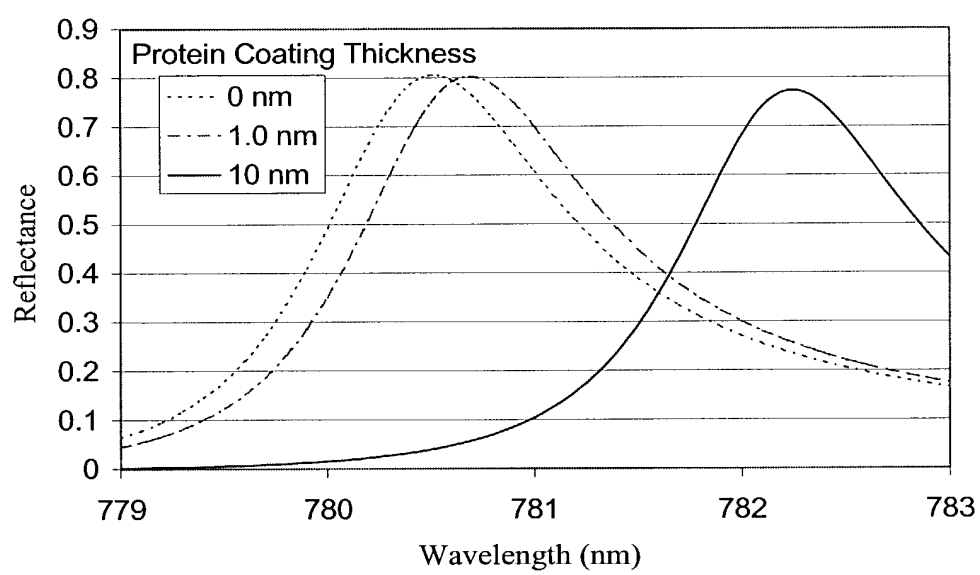


Figure 28



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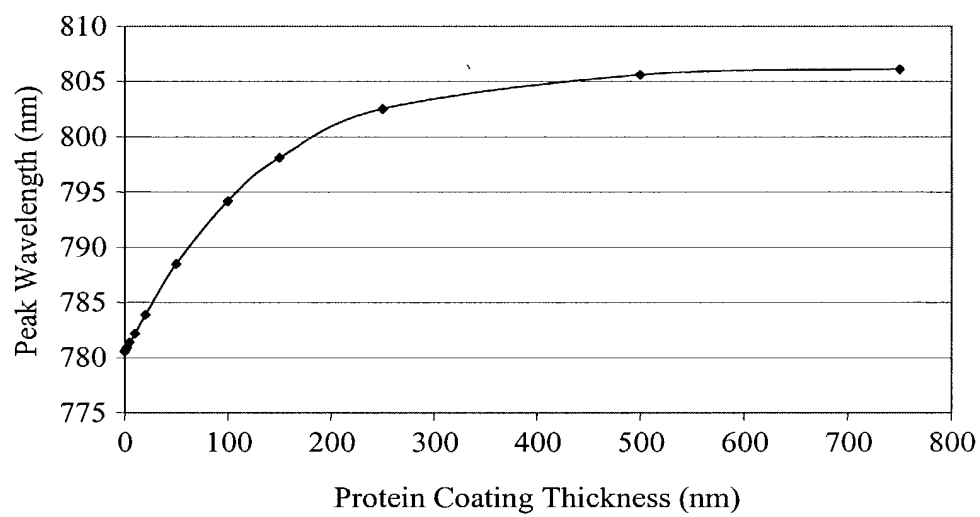
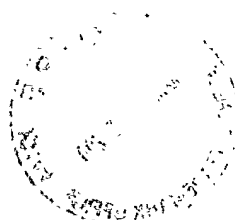


Figure 29





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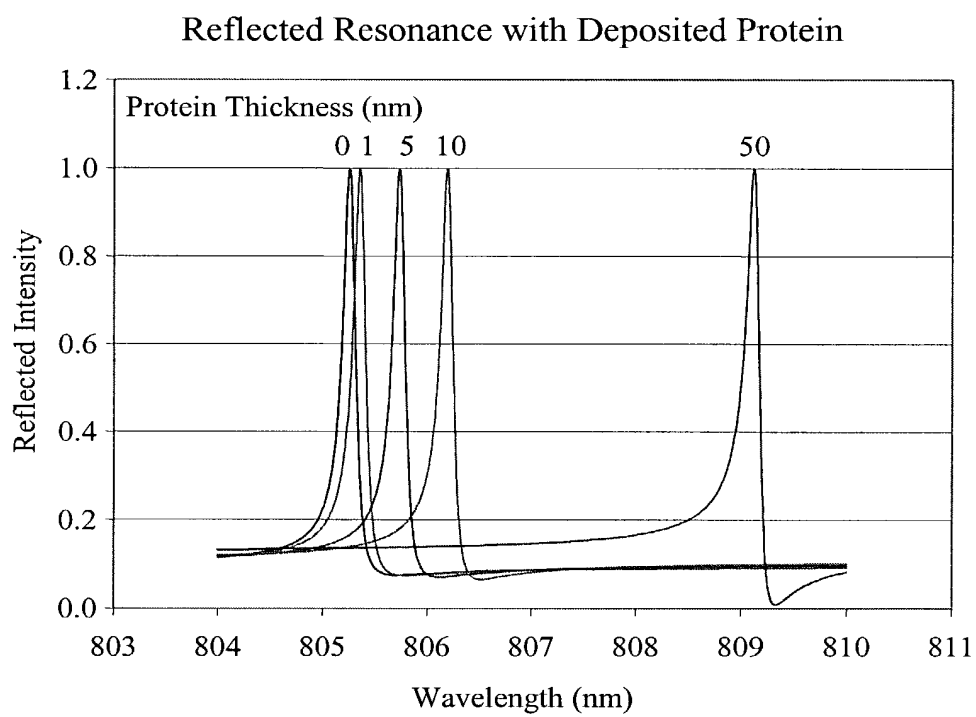
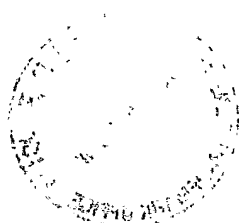


Figure 31



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Resonant Peak Wavelength Dependence  
on Deposited Protein Thickness

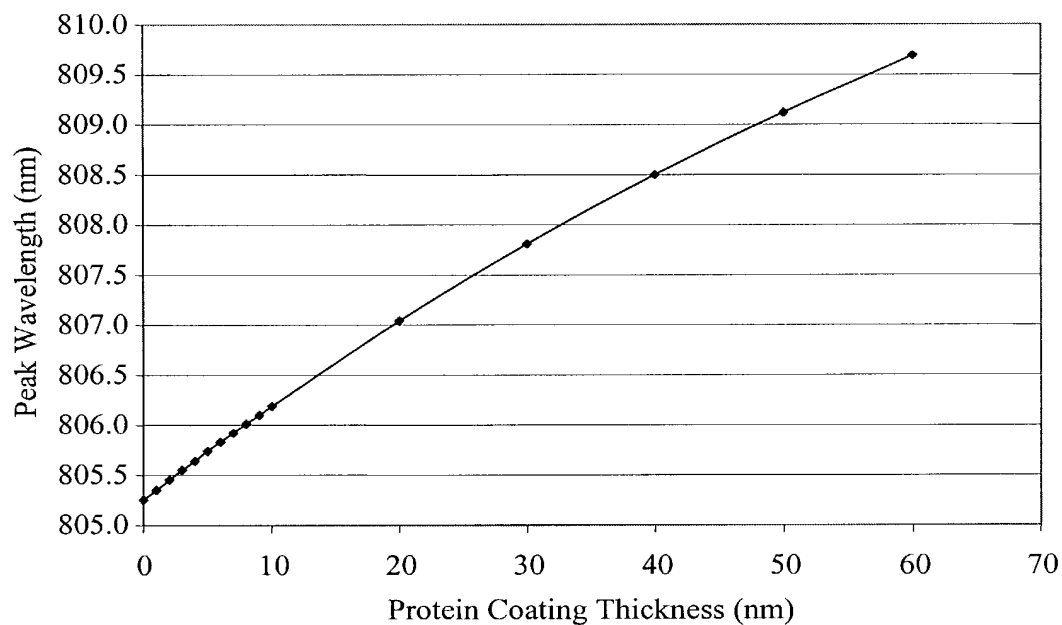


Figure 32





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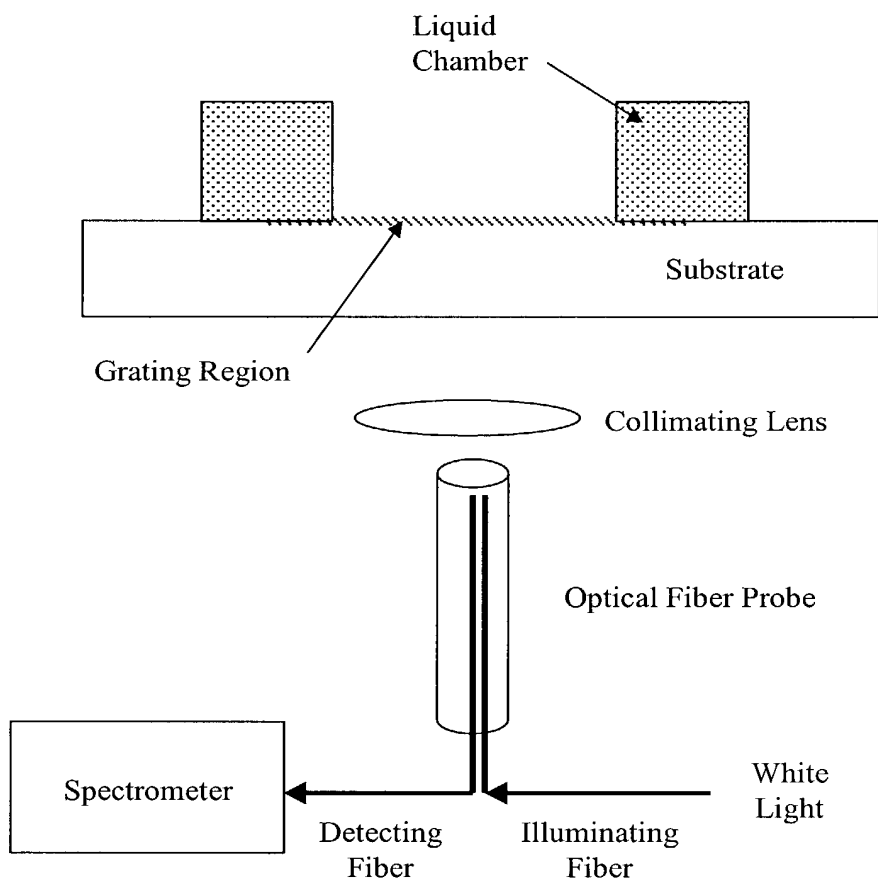


Figure 33



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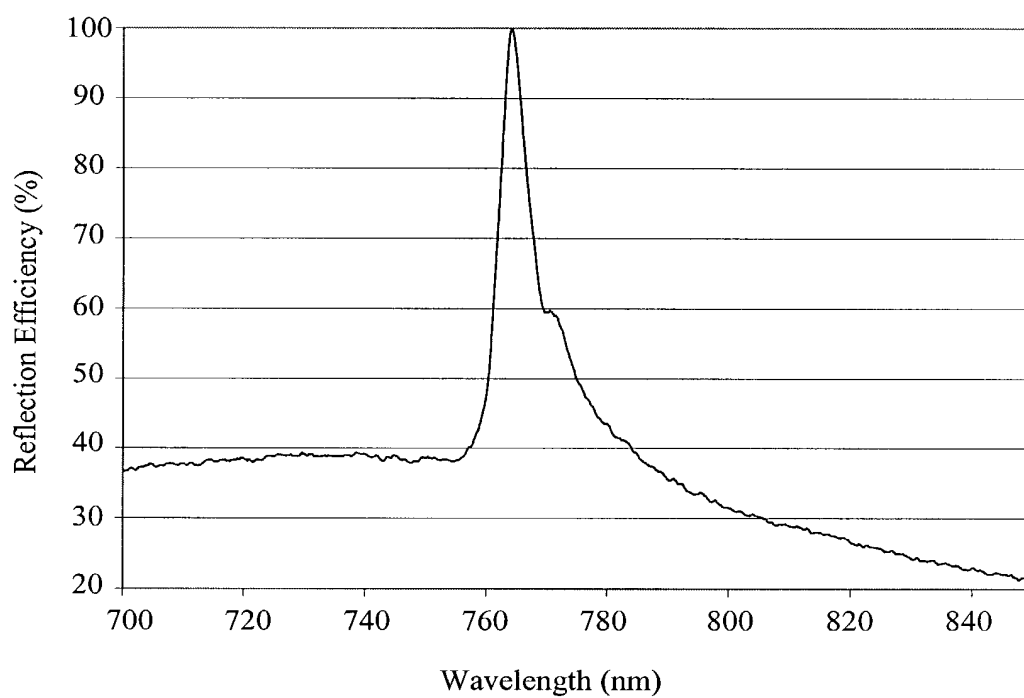
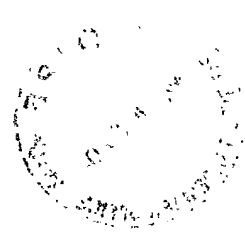
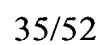


Figure 34





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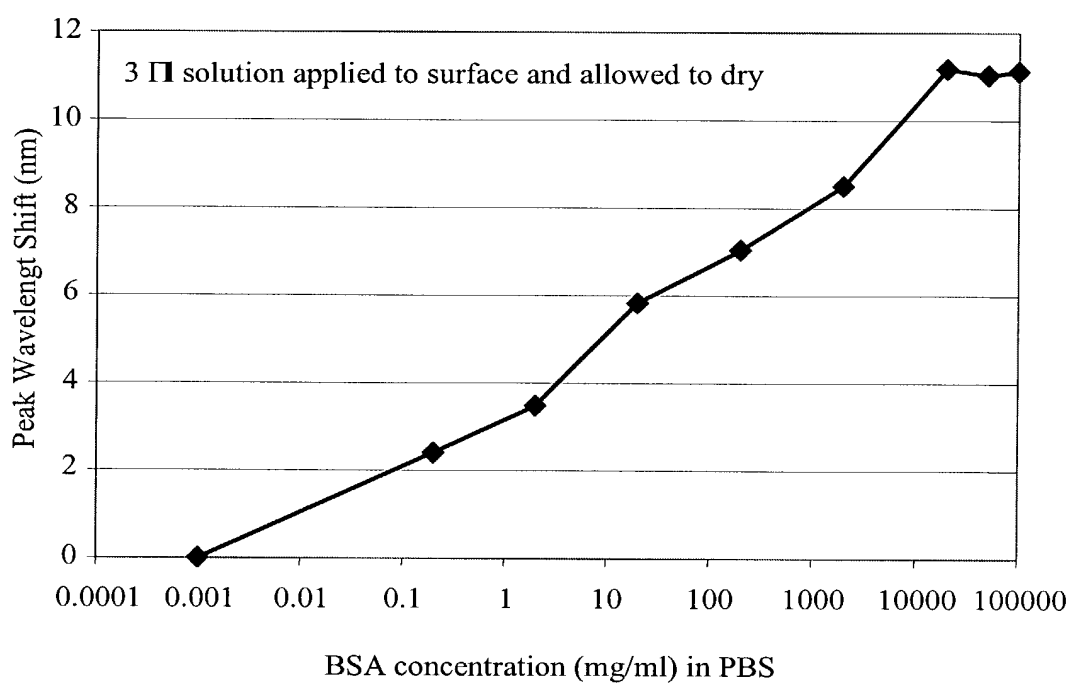


Figure 36



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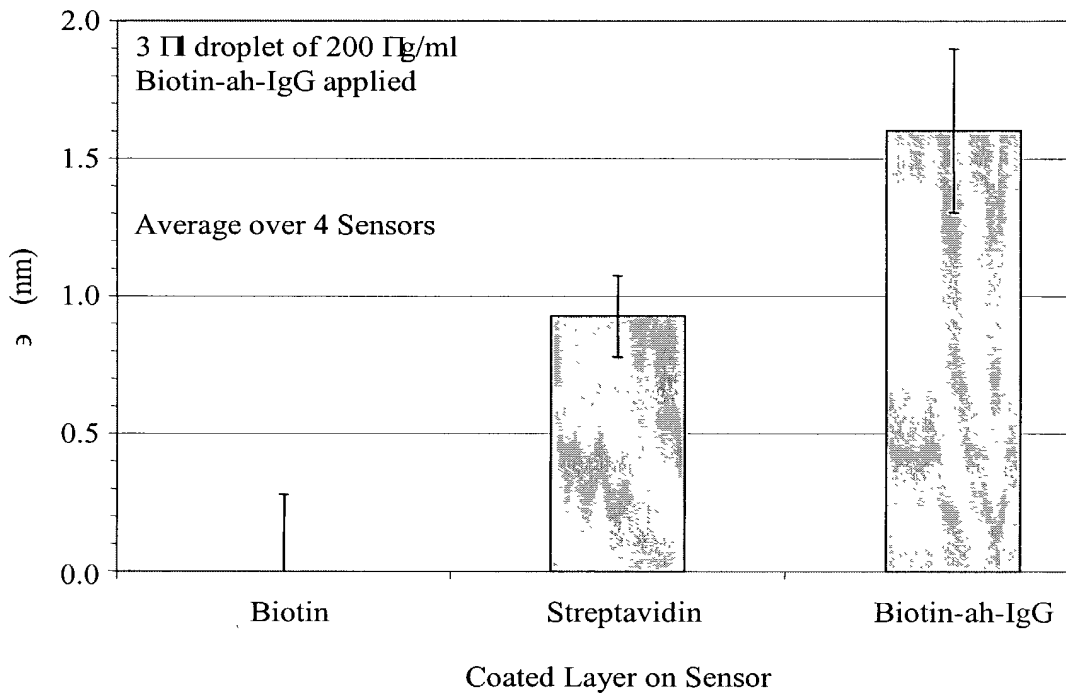


Figure 37A

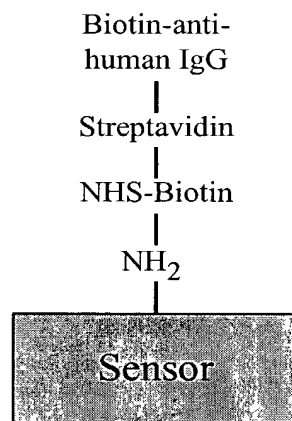


Figure 37B

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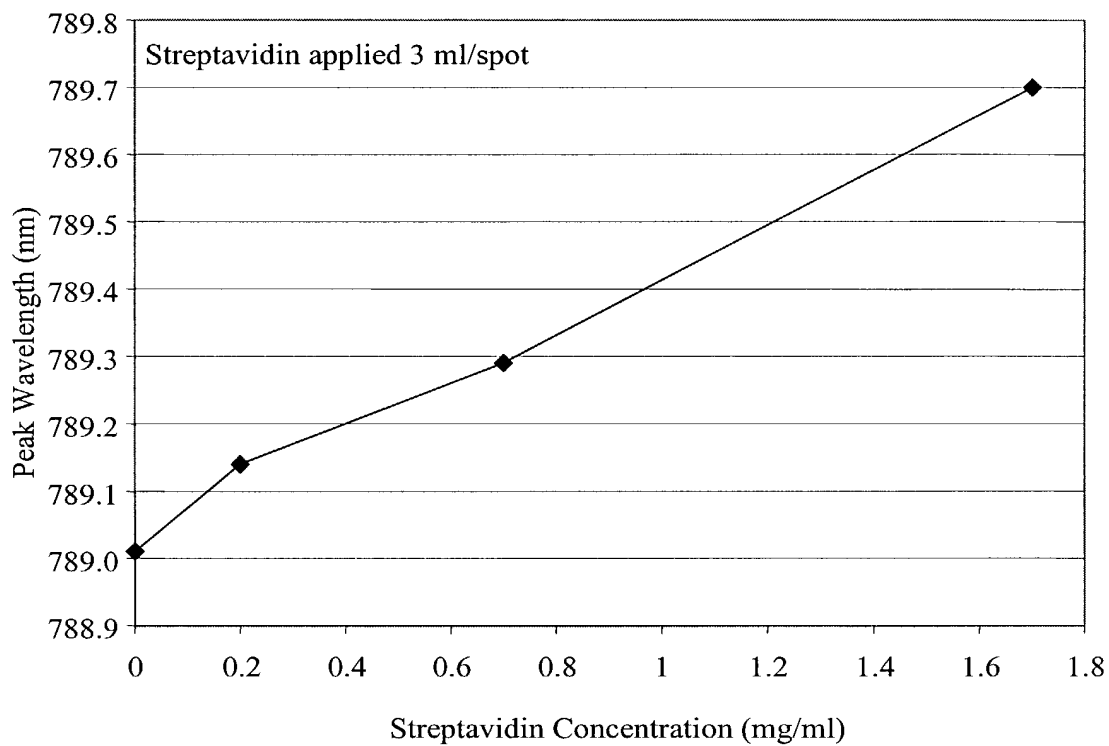


Figure 38A

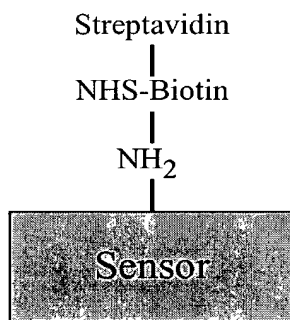


Figure 38B

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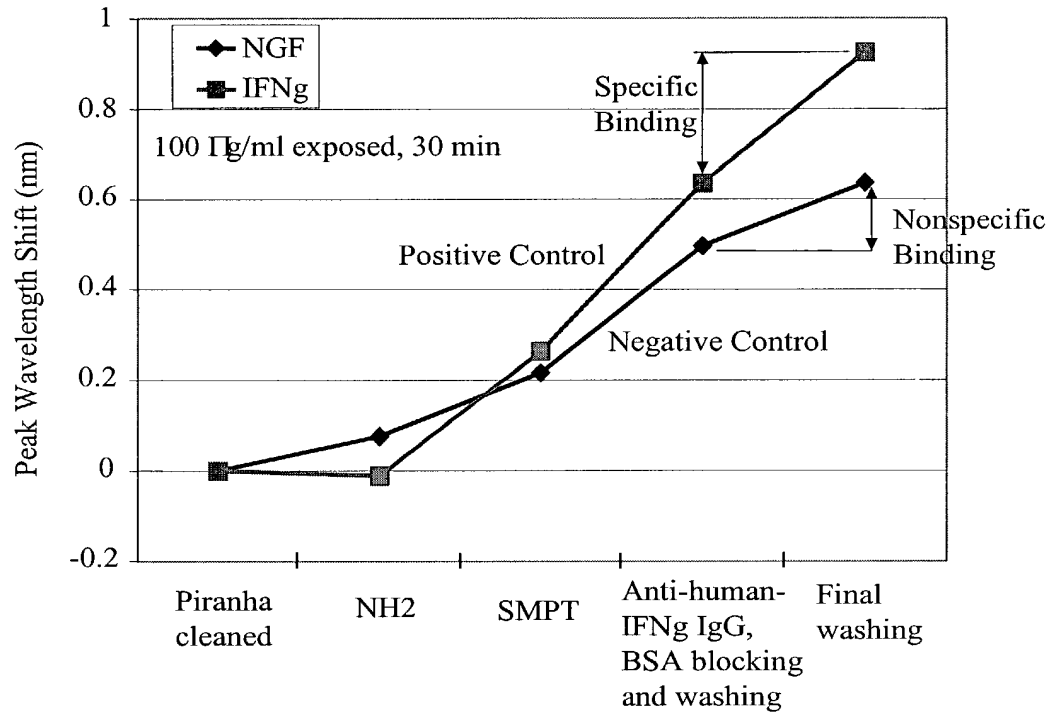


Figure 40A

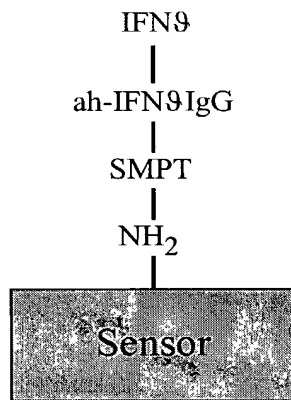


Figure 40B



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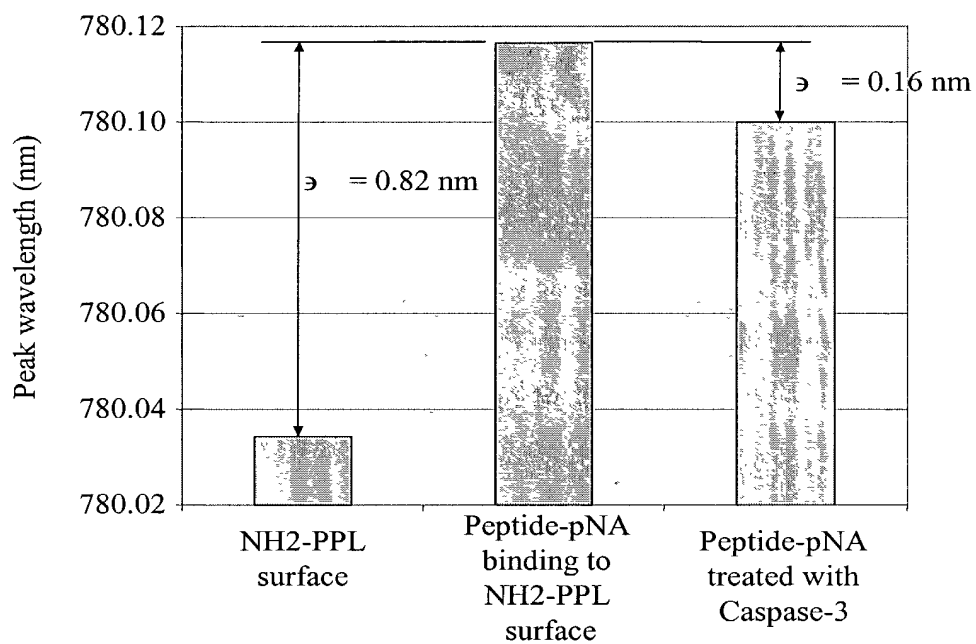


Figure 41A

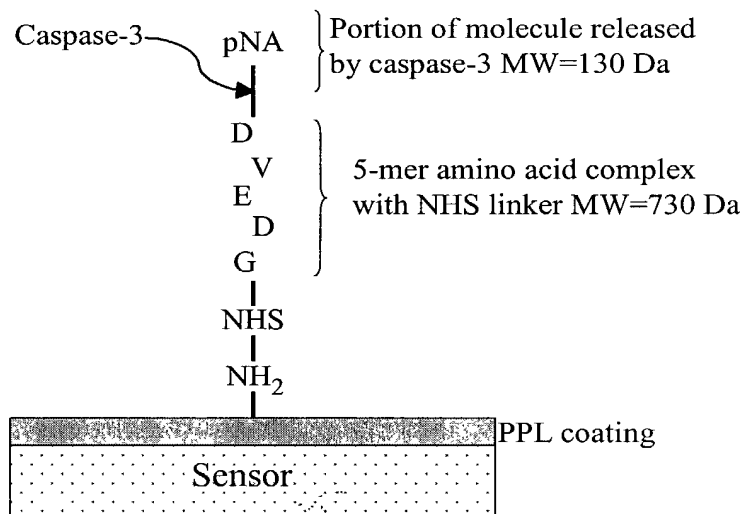


Figure 41B

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Measured shifting of the resonant wavelength caused by the binding of various biomolecular layers.

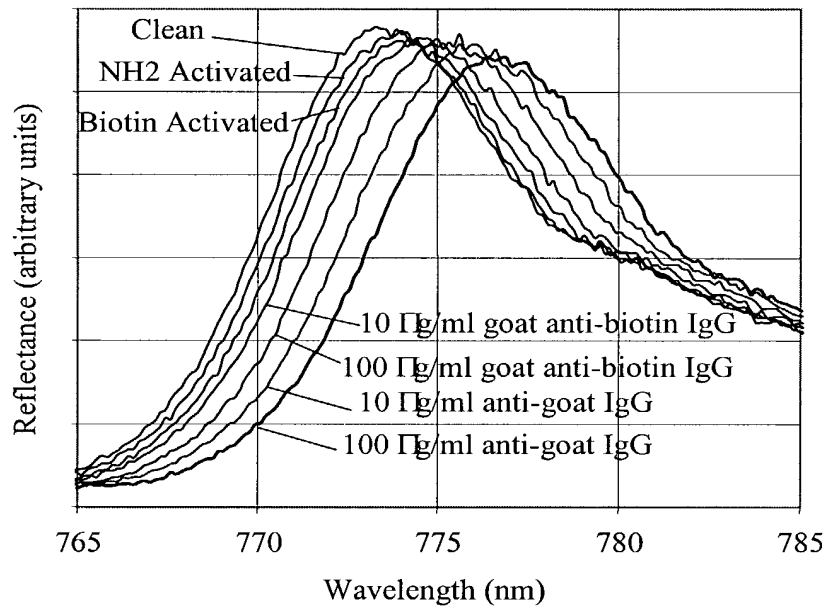


Figure 42A

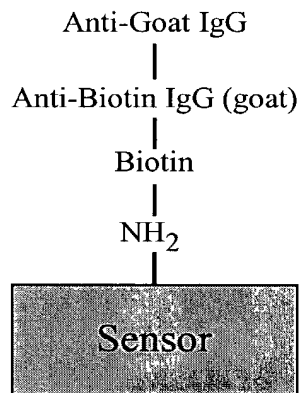


Figure 42B

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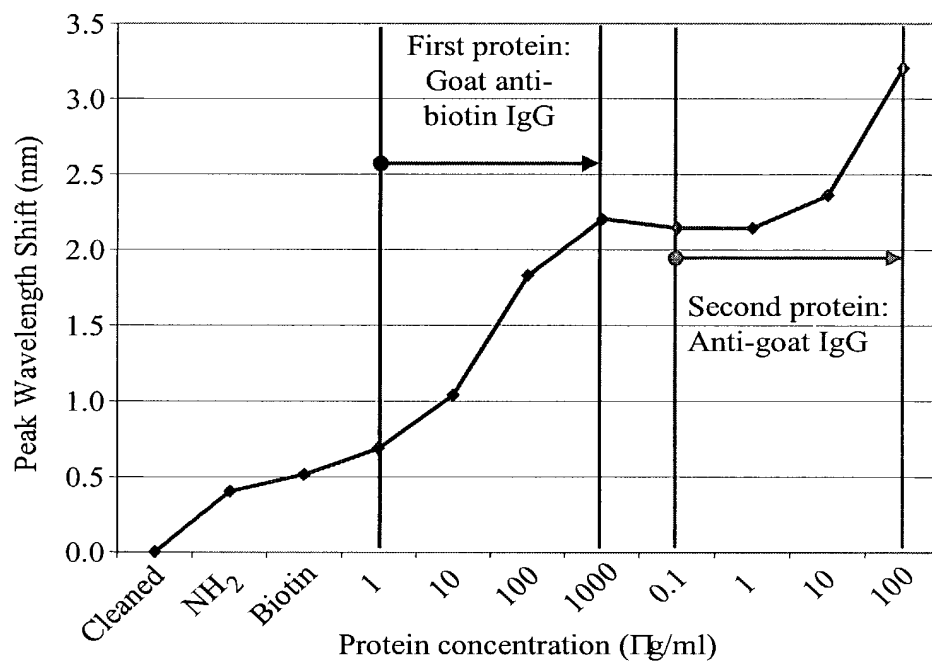


Figure 43A

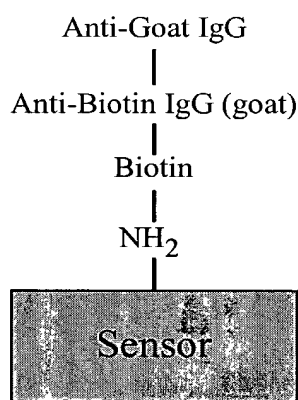


Figure 43B

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Figure 1 is a line graph showing the time course of the peak wavelength of the CD spectra of BSA. The y-axis is labeled "Peak wavelength (nm)" and ranges from 776.8 to 778.2. The x-axis is labeled "Time (min)" and ranges from 0 to 30. The curve starts at approximately 778.15 nm at t=0 and decreases steadily to about 776.85 nm at t=30. A text annotation "Addition of Pepsin (1 mg/ml) at t=0" is placed near the top right of the graph area.

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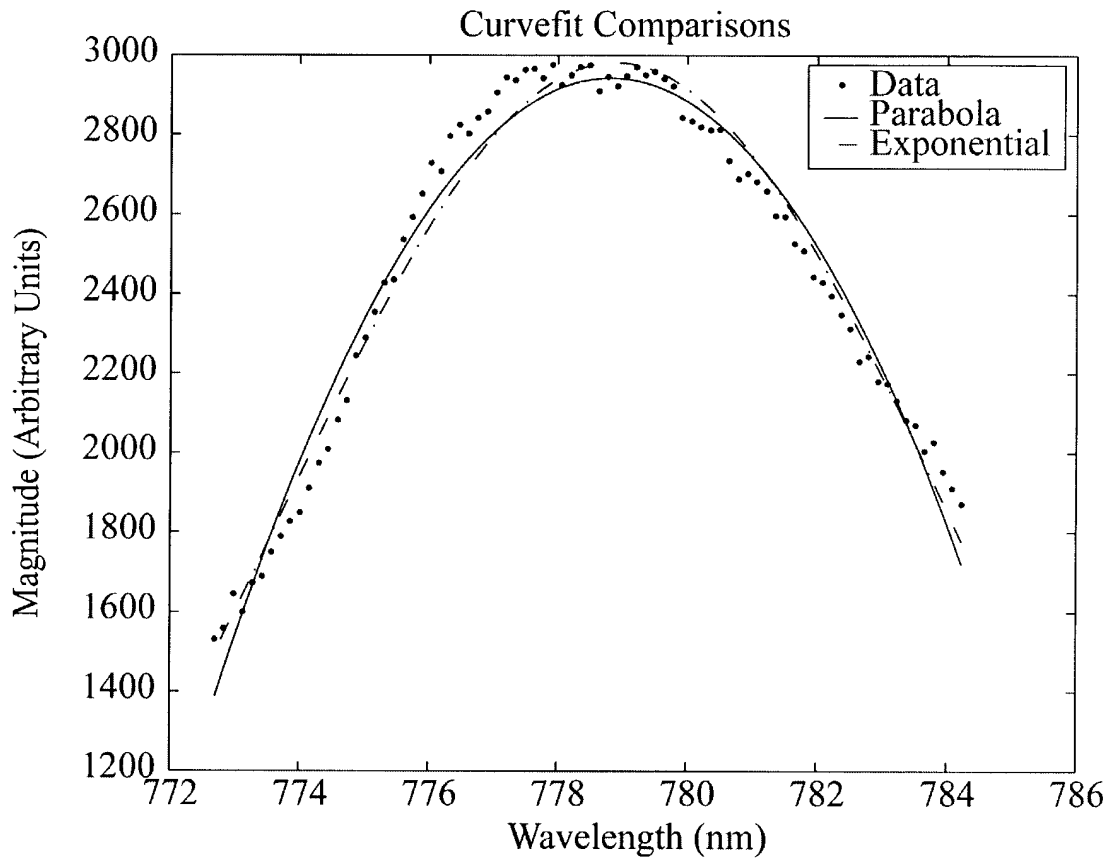
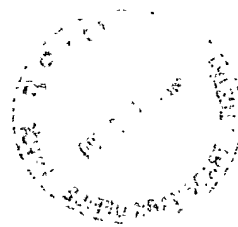


Figure 46



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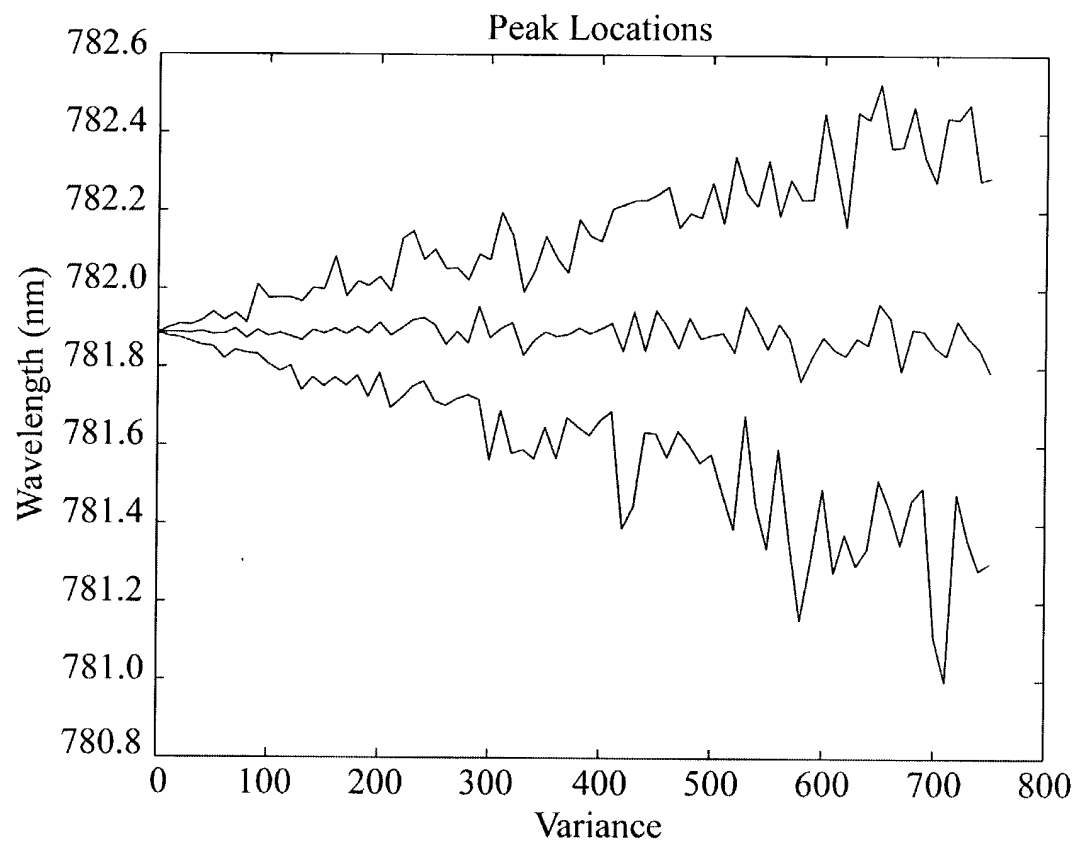
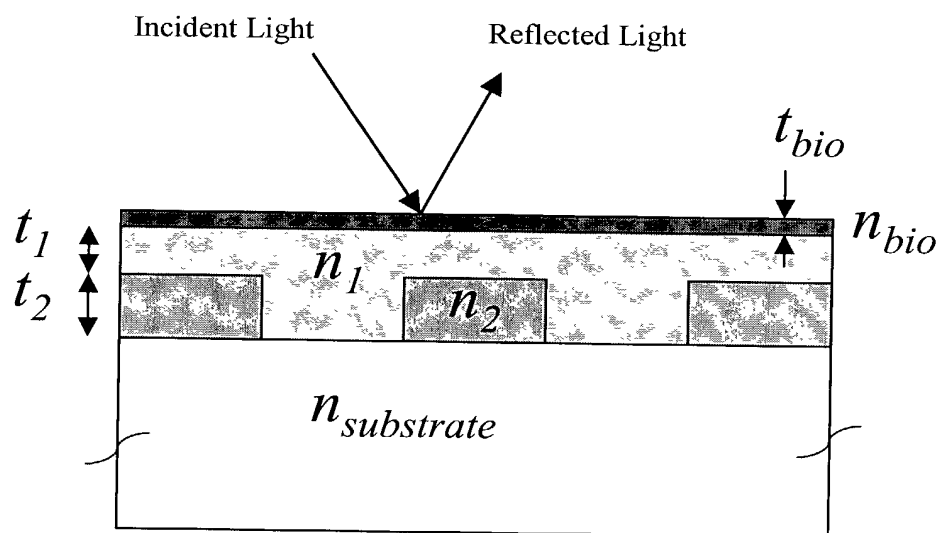


Figure 47

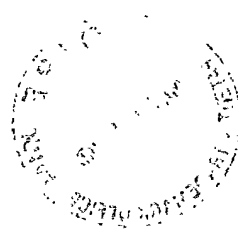


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Material 1 = Electrical Insulator (photoresist, epoxy, glass)  
 Material 2 = Indium tin oxide conductor  
 Substrate = Glass

Figure 48





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## Concentric Circle Design

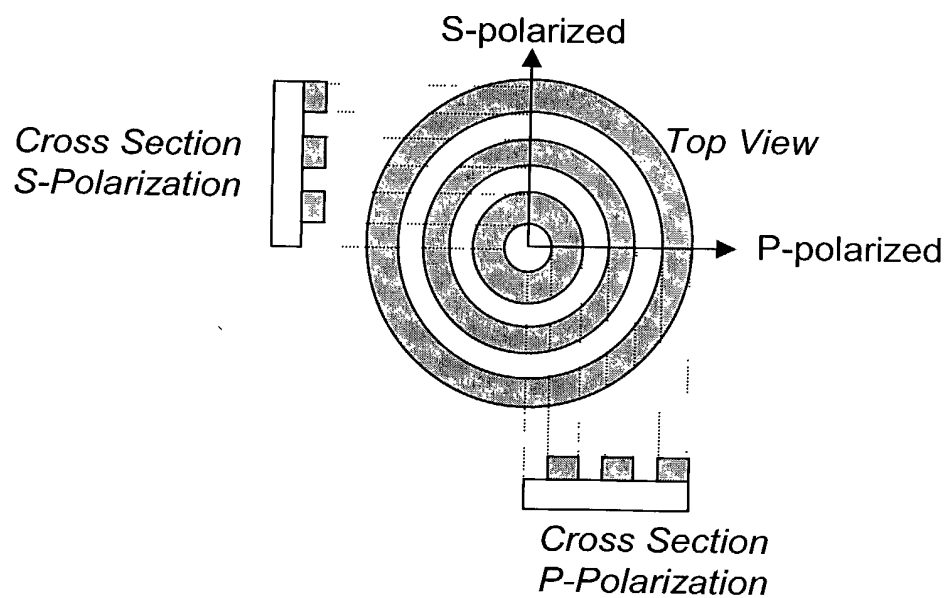


Figure 49



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# Hexagonal Grid Design

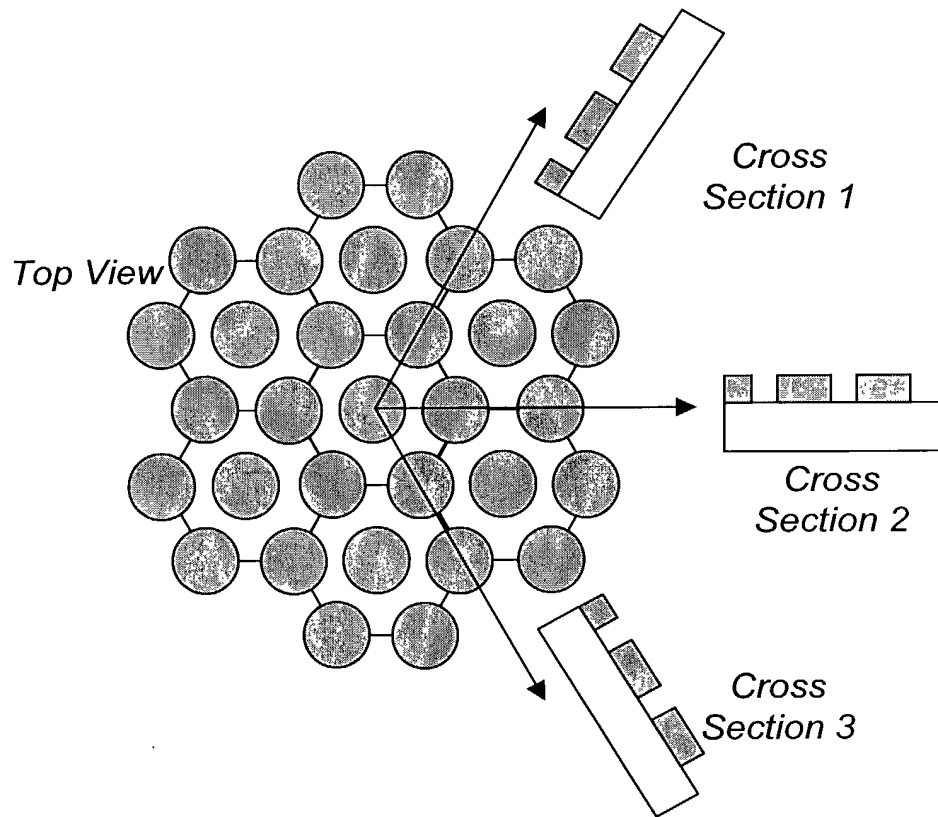
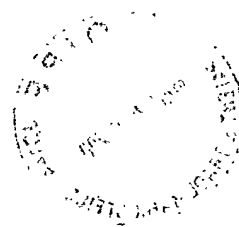


Figure 50



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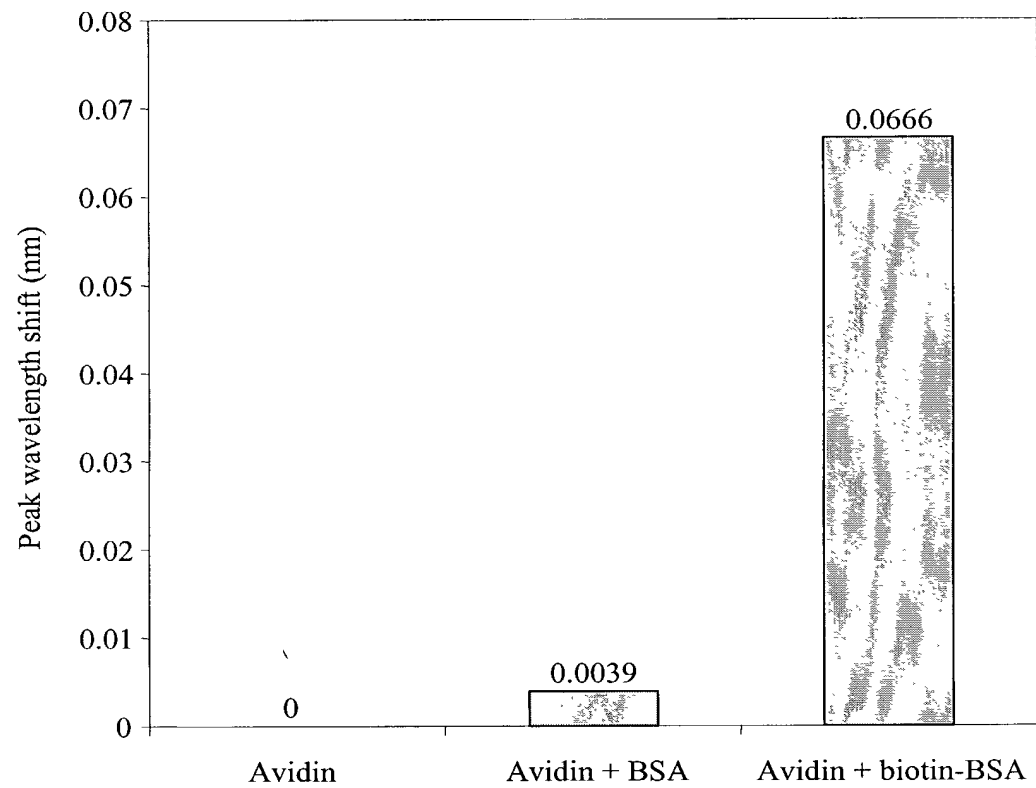
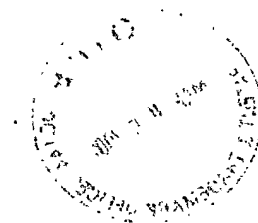


Figure 51



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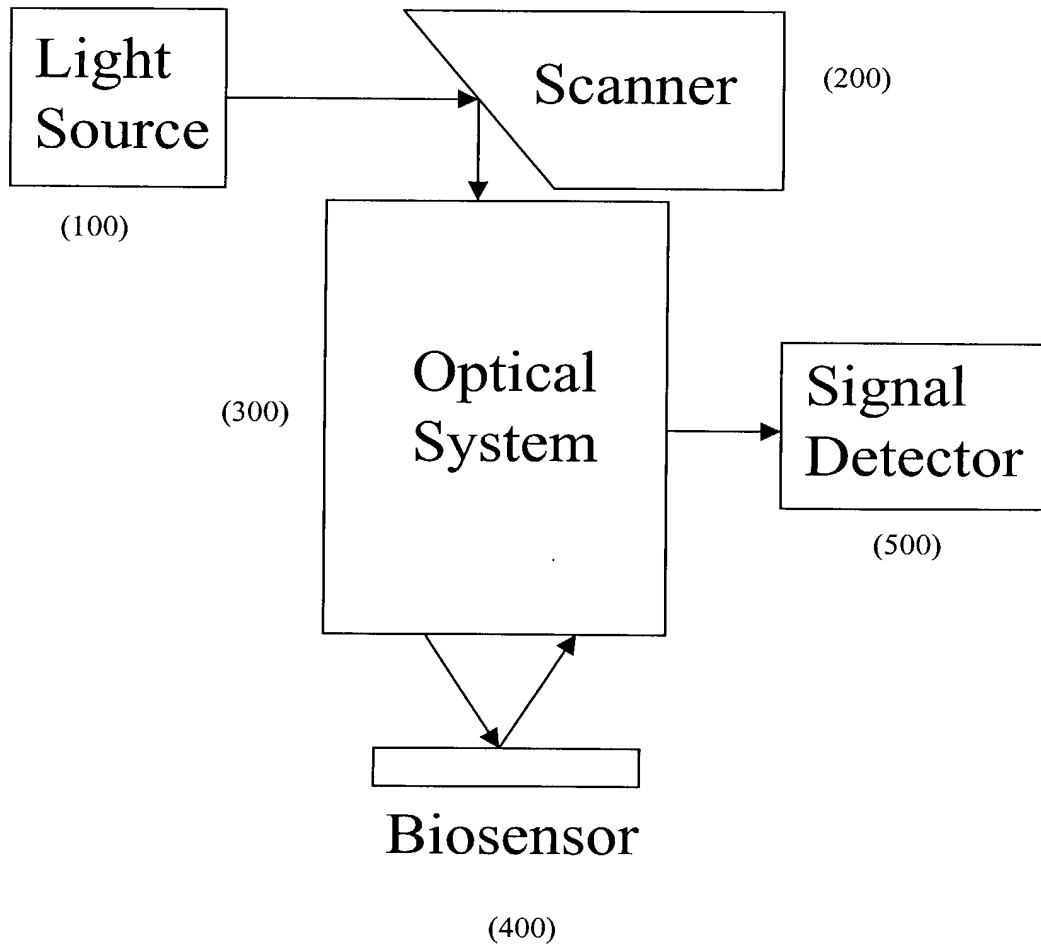


Figure 52